

WHAT IS CLAIMED IS:

1. An advanced voting system, comprising:

one or more data storage locations operable to store a plurality of registration records, each registration record including identifying information associated with a voter;

an election key generator operable to generate an election key storing information specific to each voter;

one or more computing devices operable to:

interface with the election key;

retrieve information from the election key;

display ballot questions based on the information retrieved from the election key; and

receive interactive voter selections from the voter; and

a ballot generator operable to generate encoded ballots encoded with the voter selections.

2. The system of Claim 1, wherein the registration record includes a digitized voter signature.

3. The system of Claim 1, wherein the registration record includes at least one biometric sample.

4. The system of Claim 1, wherein:

the election key generator is further operable to store one or more ballot questions customized for the particular voter on an election key; and

the one or more computing devices are further operable to retrieve the ballot questions from the election key for display to the voter.

5 5. The system of Claim 1, wherein the one or more computing devices are further operable to use the information retrieved from the election key to identify ballot questions stored at the computing device that are appropriate for the particular voter.

 6. The system of Claim 1, wherein:
 the information stored in the election key comprises a digital signature; and
 the one or more computing devices are further operable to display the ballot question to the voter only if an appropriate digital signature is retrieved from the election key.

 7. The system of Claim 1, wherein the election key comprises a bar-coded card, a magnetic strip card, a writeable optical storage disc, or a magnetic storage disc.

 8. The system of Claim 1, wherein the computing device is operable to store one or more voter selections in a voting record.

 9. The system of Claim 8, wherein the voting record comprises a unique identifier linking the voting record to a particular computing device.

 10. The system of Claim 8, wherein the voting record comprises a digital signature particular to the voter's precinct.

 11. The system of Claim 1, wherein the computing device is further operable to receive voter selections by human touch on a monitor.

 12. The system of Claim 1, wherein the computing device is further operable to display interactive help screens in a voter-selectable language.

13. The system of Claim 1, wherein the computing device is further operable to generate recorded auditory instructions in a voter-selectable language.

14. The system of Claim 1, wherein the computing device is further operable to compare the identifying information stored in a registration record to identifying information provided by the voter at the time of voting.

15. The system of Claim 1, wherein the encoded ballot is operable to store a unique identifier to link the ballot to a particular computing device.

16. The system of Claim 1, wherein the encoded ballot is operable to store a digital signature particular to the voter's precinct.

17. The system of Claim 1, wherein the encoded ballot is operable to store an anonymous voter identifier to link the encoded ballot to the particular voter.

18. The system of Claim 1, wherein the one or more computing devices are operable to audit whether an appropriate number of selections has been made by the voter as governed by election laws and the particular ballot questions.

19. The system of Claim 1, wherein the one or more computing devices are personal digital assistants.

20. The system of Claim 1, wherein the advanced voting system further comprises a tallying system, the tallying system operable to:

receive voter selections of a plurality of voters from one or more of the computing devices;

electronically tally the voter selections to reach one or more ballot question totals; and

audit the one or more ballot question totals using the encoded ballots encoded with the voter's selections.

21. The system of Claim 20, wherein:

the tallying system further comprises an encoded ballot reader operable to tally voter selections encoded on a plurality of encoded ballots; and

auditing the ballot question totals comprises comparing tally of votes from
5 encoded ballots with electronic tally of votes.

22. The system of Claim 1, wherein the advanced voting system further comprises a tallying system, the tallying system comprising:

a voting record stored on one or more of the computing devices, the voting
10 record comprising one or more voter selections from a plurality of voters; and

a tallying computer operable to communicate with the voting record and electronically tally voter selections to reach one or more ballot question totals.

23. The system of Claim 1, wherein the advanced voting system further comprises a tallying system, the tallying system operable to:

15 receive voter selections of a plurality of voters from one or more of the computing devices;

store a voting record on one or more of the computing devices, the voting record comprising one or more voter selections from a plurality of voters;

20 electronically tally the voter selections using a tallying computer to reach one or more ballot question totals; and

audit the one or more ballot question totals using the encoded ballots encoded with the voter's selections.

25 24. The system of Claim 1, wherein the advanced voting system further comprises at least one encoded ballot reader, each encoded ballot reader operable to tally voter selections of a plurality of voters encoded on encoded ballots.

30 25. The system of Claim 1, wherein the advanced voting system further comprises at least one encoded ballot reader, each encoded ballot reader operable to verify voter selections encoded on the encoded ballot.

26. The system of Claim 1, wherein:

the one or more computing devices are further operable to present an option to a voter allowing the voter to choose to write-in one or more voter selections; and

the ballot generator is further operable to create a write-in selection space on the encoded ballot.

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27. A method for advanced voting, comprising:

storing a plurality of registration records in a data storage location, the registration record including identifying information associated with a voter;

generating an election key using an election key generator, the election key
5 storing information specific to the voter;

retrieving information specific to the voter from the election key at a voting booth;

displaying ballot questions based on the information retrieved from the election key at the voting booth;

receiving interactive voter selections from the voter at the voting booth;
10 generating encoded ballots encoded with the voter selections using a ballot generator; and

electronically tallying voter selections by a plurality of voters.

28. The method of Claim 27, wherein the registration record includes a digitized voter signature.

29. The method of Claim 27, wherein the registration record includes at least one biometric sample.

30. The method of Claim 27, further comprising:
storing one or more ballot questions customized for the voter on the election key; and

retrieving the ballot questions for display to the voter at the voting booth.

31. The method of Claim 27, wherein displaying ballot questions further comprises using the information retrieved from the election key to identify ballot questions stored at the voting booth that are appropriate for display to the voter.

32. The method of Claim 27, wherein:
the information stored in the election key comprises a digital signature; and
the ballot questions are displayed to the voter only if an appropriate digital
signature is retrieved from the election key.

33. The method of Claim 27, wherein the election key comprises a bar-
coded card, a magnetic strip card, a writeable optical storage disc, or a magnetic
storage disc.

34. The method of Claim 27, further comprising storing one or more voter
selections in a voting record.

35. The method of Claim 34, wherein the voting record comprises a unique
identifier linking the voting record to a particular voting booth.

36. The method of Claim 34, wherein the voting record comprises a digital
signature particular to the voter's precinct.

37. The method of Claim 27, further comprising receiving the voter
selections by human touch on a monitor.

38. The method of Claim 27, further comprising displaying interactive
help screens in a voter-selectable language.

39. The method of Claim 27, further comprising generating recorded
auditory instructions in a voter-selectable language.

40. The method of Claim 27, further comprising comparing the identifying
information stored in a registration record to identifying information provided by the
voter at the time of voting.

41. The method of Claim 27, further comprising auditing whether an appropriate number of selections has been made by the voter as governed by election laws and the particular ballot questions.

5 42. The method of Claim 27, further comprising:
electronically tallying voter selections by a plurality of voters to reach one or more ballot question totals; and
auditing the one or more ballot question totals using the encoded ballots encoded with the voter's selections.

10 43. The method of Claim 42, wherein tallying voter selections further includes detecting irregularities in voter selections.

15 44. The method of Claim 27 further comprising:
storing one or more voter selections from a plurality of voters at the voting booth; and
communicating the voting record to a tallying computer, the tallying computer operable to electronically tally voter selections to reach one or more ballot question totals.

20 45. The method of Claim 27 further comprising:
receiving voter selections of a plurality of voters from one or more of the computing devices;
storing a voting record on one or more of the computing devices, the voting
25 record comprising one or more voter selections from a plurality of voters;
electronically tallying the voter selections using a tallying computer to reach one or more ballot question totals; and
auditing the one or more ballot question totals using the encoded ballots encoded with the voter's selections.

46. The method of Claim 27, further comprising:
- presenting the voter with the option of choosing to write-in the voter selections; and
 - providing a write-in selection space on the encoded ballot.

47. An absentee ballot, comprising:

a plurality of encoded barcodes, each barcode associated with a voter option;

and

a voter selection area associated with each barcode, the voter selection area
5 positioned such that when a voter marks a selection in the voter selection area, the
associated barcode is altered so as to indicate a voter selection of the associated voter
option.

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48. An advanced voting system, comprising:

means for storing a plurality of registration records, the registration record including identifying information associated with a voter;

5 means for generating an election key, the election key storing information specific to each voter;

means for interfacing with the election key and retrieving information specific to each voter from the election key;

means for displaying ballot questions based on the information retrieved from the election key;

10 means for receiving interactive voter selections from the voter; and

means for generating encoded ballots encoded with the voter's selections.

49. Advanced voting software embodied in a computer-readable medium and operable to:

receive information specific to a voter from an election key;
display ballot questions based on the information retrieved from the election

key;

receive interactive voter selections from the voter; and
generate encoded ballots encoded with the voter selections.

50. The software of Claim 49, further operable to identify ballot questions that are appropriate for the particular voter based on the information received from the election key.

51. The software of Claim 49, wherein the information received from the election key comprises the ballot question to be displayed to the voter.

52. The software of Claim 49, further operable to:
receive a digital signature from the election key; and
display the ballot question to the voter only if an appropriate digital signature is received from the election key.

53. The software of Claim 49, further operable to receive voter selections by human touch on a monitor.

54. The software of Claim 49, further operable to display interactive help in a voter-selectable language.

55. The software of Claim 49, further operable to generate recorded auditory instructions in a voter-selectable language.

56. The software of Claim 49, further operable to audit whether an appropriate number of selections has been made by the voter as governed by election laws and the particular ballot questions.

- 5 57. The software of Claim 49, further operable to:
- present an option to the voter allowing a voter to choose to write-in the voter selections; and
 - generating a write-in selection space on the encoded ballot.

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58. A method for providing an advanced voting system, comprising:

determining one or more election authorities that are using paper ballot voting systems; and

5 leasing one or more advanced voting systems to the one or more election authorities to replace the associated paper ballot voting system, the advanced voting systems each being leased to one of the election authorities for not more than the cost of preparing pre-printed paper ballots used in conjunction with the paper ballot voting system associated with the election authority, the advanced voting systems each comprising:

10 one or more data storage locations operable to store a plurality of registration records, each registration record including identifying information associated with a voter;

an election key generator operable to generate an election key storing information specific to each voter;

15 one or more computing devices operable to:

interface with the election key;

retrieve information from the election key;

display ballot questions based on the information retrieved from the election key; and

20 receive interactive voter selections from the voter; and

a ballot generator operable to generate encoded ballots encoded with the voter selections.